

Chimps Employ Culture to Branch Out

On a new cable television program, trained chimpanzees mug their way through parodies of standard network fare. But don't underestimate these furry, lipstick-smeared thespians. Far from the broadcast jungle's lowbrow hijinks, wild chimpanzees develop rich sets of cultural traditions that have much in common with human culture, according to a synthesis of decades of field observations.

Other than humans, only chimps show a documented penchant for passing on styles of tool use, grooming, and other behaviors through teaching and imitation, contends a group of researchers led by Andrew Whiten of the University of St. Andrews in Scotland. The mix of cultural traditions varies across chimp communities, add the scientists, including famed chimp researcher Jane Goodall of Tanzania's Gombe Stream Research Centre in Kigoma.

Such assertions have long inspired debate over the nature of culture. Some scientists define culture as a product of language and thus unique to humans.

"Chimpanzee culture represents a step on the ladder between what most animals do and what humans do," holds Richard W. Wrangham of Harvard University, a coauthor of the new report. It appears in the June 17 *NATURE*.

Whiten's team focused on seven groups of common chimps observed in Africa for periods ranging from 8 to 38 years. The researchers defined a cultural act as one performed regularly by several members of one or a few—but not all—groups. Careful review of studies yielded 39 such behaviors that were potentially available to all the communities.

Chimps' cultural traditions included cracking nuts by using pieces of wood as hammer and anvil, sucking ants off sticks, clasping a comrade's arms overhead, and slapping tree branches to get attention.

Whether such acts spread via imitation or other learning is unclear, Whiten says. Scientists also know little about how chimps invent traditions (*SN*: 6/5/99, p. 364).

Nevertheless, the study underscores a growing willingness to grant chimps at least rudimentary cultural capacities (*SN*: 12/12/98, p. 374). Moreover, field-workers continue to uncover chimp cultural practices, adding to those that Whiten's group tallied (*SN*: 5/15/99, p. 315).

"The evidence is overwhelming that chimpanzees have a remarkable ability to invent new customs and technologies, and that they pass these on socially rather than genetically," remarks Frans B.M. de Waal of Emory University in Atlanta in a commentary accompanying the group's report.

In a noncultural example of mental sophistication, de Waal and Emory coworker Lisa A. Parr report that chimps recognize facial similarities between unfamiliar chimp mothers and their sons, but not between chimp mothers and their daughters. This ability may help females—who migrate to nearby groups at puberty—to dampen inbreeding by avoiding communities in which many males look like their mothers, the researchers propose in the same issue of *NATURE*.

Chimps' cultural affinity with humans has a particular poignancy, Whiten says.

"Chimpanzees are dying out, partly due to a thriving bush-meat trade in Africa. Our research accentuates the need to preserve wild chimps," he says.

—B. Bower